ASSISTANT SECRETARY OF DEFENSE
6000 DEFENSE PENTAGON
WASHINGTON, DC 20301-6000

July 13, 2000

COMMAND, CONTROL,
COMMUNICATIONS, AND
INTELLIGENCE

MEMORANDUM FOR: SEE DISTRIBUTION

SUBJECT: Department of Defense (DoD) Information Technology (IT) Systems
Certification Requirements

This memorandum provides guidance on certification of Major Automated Information Systems (MAIS) compliance with the Clinger-Cohen Act (CCA) of 1996 (40 U.S.C. 1401 et seq.). Section 8121 (b) of the DoD Appropriations Act, 2000 requires the DoD Chief Information Officer (CIO) to certify that MAIS are being developed in accordance with CCA prior to each Milestone approval after Milestone 0. All MAIS programs (including those in Acquisition Category (ACAT) IAM, ACAT IAC and those designated as Special Interest Initiatives) that are scheduled for Milestone approval in FY 2000 are subject to this certification. The certification process for these initiatives will be tailored as appropriate. The DoD CIO is updating the current list of DoD major IT investments subject to certification (dated May 5, 1999). It will be provided to you upon completion.

The statute requires the DoD CIO to notify the Congress of MAIS certifications in a timely manner. Such notifications to Congress must include the program funding baseline, Milestone schedule and, at a minimum, confirmation that the following requirements have been satisfied with respect to the program:

- **Business Process Reengineering:** Describe actions taken to streamline or reengineer the business processes before decisions were made to invest in the new IT system.

- **Analysis of Alternatives:** Identify and discuss alternatives analyzed to justify the preferred alternative to be initiated to satisfy a valid mission need.

- **Economic Analysis:** Include a calculation of the return on investment.

- **Performance Measures:** Describe measurable performance indicators used to systematically track the progress made in achieving predetermined goals.

- **Information Assurance (IA):** Identify an information assurance strategy consistent with the Department's policies, standards, and architectures.

A description of these requirements is contained in the joint memorandum of May 1, 1997, *"Requirements for Compliance with Reform Legislation for Information Technology (IT) Acquisitions (Including National Security Systems)."* That memorandum remains in effect and many of its requirements have been incorporated into the existing regulatory guidance and our

oversight processes. In addition, the DoD CIO will determine any additional requirements for certification, as appropriate, on a case by case basis.

The procedures for MAIS certification will be similar to those followed for Milestone reviews. The DoD Component Head or designee shall prepare the CCA Compliance Report prior to Milestone approval for ACAT IAM and ACAT IAC programs using Attachment 1, the Confirmation Matrix. Also, Attachment 2 is provided as sample templates for the Compliance Report and CIO Certification Report. Components shall submit the certification documentation to the DoD CIO for ACAT IAM and ACAT IAC programs at least six weeks prior to scheduled Milestone approval. In addition, the following procedures shall be followed:

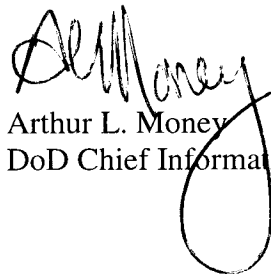- **ACAT-IAM Programs and Special Interest Programs for DCIO Review:** The Component Head or designee shall concur with the CCA Compliance Report. The DoD CIO will prepare the Certification Report for congressional notification. The DoD CIO will coordinate the CCA Certification Report with the Director for Program Analysis and Evaluation (PA&E), Under Secretary of Defense (Comptroller), General Counsel, Legislative Affairs, and other applicable staff elements.

- **ACAT-IAC Programs and Special Interest Programs for Component CIO Review:** Component Head or designee shall approve the CCA Compliance Report and prepare the Certification Report for DoD CIO approval and congressional notification. The DoD CIO will use the same coordination process for the Certification Report as for IAM programs as stated above.

Attachments 1 and 2 reflect the minimum requirements with the applicable Milestone decision points for certification. The Clinger-Cohen Act certification will be addressed in the next edition of DoD Instruction 5000.2. Links to documents referenced in this memorandum are at the Links page URL: http://www.c3i.osd.mil/org/cio/index.html.

My point of contact for this effort is Mr. Edward Wingfield, (703) 604-1583, ed.wingfield@osd.pentagon.mil.

Arthur L. Money
DoD Chief Information Officer

Attachments:
As stated

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Section 8121(b) Confirmation Matrix
(Applies to all Milestones)

Section 8121 Confirmation Requirements	Statutory Basis	Assessment Guidelines	Other References	Office of Primary Responsibility
(A). Business Process Reengineering (BPR):				PSA, CAE, JS, CIO & PA&E
i. Identify the governance process through which the programs executive leadership manages change. (**GAO/AIMD-10.1.15: Issues 3, 4 , 7 and 8**)*	40 USC 1413 (b)(2)(B)(C) 40 USC 1423 (4)(5)	"Planning, Budgeting, and Acquisition of Capital Assets" OMB Circular A-11 July 1999	Strategic Plans Performance Plan Mission Need Statement (MNS)	
ii. How has program mission been aligned with strategic goals? Have mission critical processes been defined and mapped? (**GAO/AIMD-10.1.15: Issue 1**)*	GPRA 5 USC 306 GPRA 31 USC 1115 PRA 44 USC 3506(b)(3)(C)	"Capital Programming Guide" V 1. OMB July 1997 "Business Process Reengineering Guide" GAO/AIMD-10.1.15 May 1997*	Capstone Requirements Document (CRD) Operational Requirements Document (ORD)	
iii. Have the gaps been assessed between current performance and functional proponent/user needs? Has current performance been benchmarked? Have the gaps been defined in terms of functional requirements? (**GAO/AIMD-10.1.15: Issue 2**)*				

* **DoD CIO interim policy on Business Process Reengineering will be based on this GAO Guide**

Attachment 1

Section 8121 Confirmation Requirements	Statutory Basis	Assessment Guidelines	Other References	Office of Primary Responsibility
(A). Business Process Reengineering (con't)				
iv. **(GAO/AIMD-10.1.15: Issues 3 and 6)*** A. Can the process be eliminated? B. Can the process be accomplished more efficiently by other federal organization, e.g., another Component or even another organization within the same Component? C. Can the process or system be outsourced in part or entirely?	40 USC 1422 (b)(1)(3)(5) 40 USC 1423 (1)(3) 40 USC 1461 et.seq.			

Section 8121 Confirmation Requirements	Statutory Basis	Assessment Guidelines	Potential Information Source	Office of Primary Responsibility
(B) Analysis of Alternatives (AoA)				PSA, CAE, JS, CIO & PA&E
i. Develop and update business case for IT funding to support core functional requirements identified through the BPR process and needed to meet mission needs. **(GAO/AIMD-10.1.15: Issues 3 and 6)***	*Same as for BPR Above Plus*	Same as for BPR	Mission Need Statement Analysis of Alternatives	
	40 USC 1412(c)			
ii. . **(GAO/AIMD-10.1.15: Issues 3 and 6)*** A. Does the proposed investment in IT support core mission and functions that need to be performed by the Government? If not, then eliminate or privatize the functions. B. Does the investment need to be undertaken by DoD because no alternative private sector or governmental sources can better support the function? Did this decision consider the requirements of OMB Circular A-76? C. Does the investment support work processes that have been simplified or otherwise redesigned to reduce cost, improve effectiveness, and make maximum use of COTS technology? If not, management should reengineer business process first, then search for alternatives iii. Has a performance-based, risk adjusted analysis of benefits and costs been developed for each reasonable design alternative? **GAO/AIMD-10.1.15: Issues 5, as well as 3 and 6)***	40 USC 1422(b)(1)(3)(5) 40 USC 1423(1)(3) 40 USC 1461 et.seq.			

Section 8121 Confirmation Requirements	Statutory Basis	Assessment Guidelines	Other References	Office of Primary Responsibility
				PSA, JS, CIO, PA&E & PEO
(C). Economic Analysis (EA)				
Does the projected return on investment (ROI) calculation support the preferred alternative? Identify elements to be considered in ROI including improvements to mission performance, resource savings, or qualitative mission benefits.) If possible provide an overall ROI for each increment of an incremental or evolutionary acquisition program.	40 USC 1412(c) 40 USC 1422(b)(5)(6)	Same as for BPR Plus OMB Circular A-94 "Guidelines and Discount Rates for Benefit-Cost Analysis of Federal Programs" OD/PA&E Draft Economic Analysis Guidance	Analysis of Alternatives Life-Cycle Cost (and Benefit) Estimate	

Section 8121 Confirmation Requirements	Statutory Basis	Assessment Guidelines	Other References	Office of Primary Responsibility
				PSA, JS, CIO, PA&E, DOT&E & PEO
(D) Performance Measures				
i. Are there clearly established mission performance measures and accountability for program progress for post deployment and evaluation? **(GAO/AIMD-10.1.15: Issue 9)***	40 USC 1412(c)	Same as for BPR	Mission Need Statement (MNS)	
	40 USC 1423(1)(3)			
	40 USC 1427		Test and Evaluation Master Plan (TEMP)	
ii. Are these performance measures linked to DoD strategic goals and objectives? **(GAO/AIMD-10.1.15: Issue 9)***	40 USC 1425(c)(2)		Acquisition Program Baseline (APB)	
	PRA 44 USC 3506(b)(3)(A)(C)			
iii. Are acquisition performance measures being used? Describe application of performance measures in evaluation of mission accomplishment.	CFO 31 USC 902(a)(3)(7)		Operational Requirements Document (ORD)	
	FASA 41 USC 263		Concept of Operations (CONOPS)	
			Doctrine	
			Strategic Plans	

Section 8121 Confirmation Requirements	Statutory Basis	Assessment Guidelines	Other References	Office of Primary Responsibility
(E). Information Assurance(IA)				C3I & PEO
i. What security features, practices procedures and architectures of an IT system accurately mediates and enforces the DoD security policy?	40 USC 1413 (b)(2)(D) 40 USC 1423(6)	DoDI 5240.40, "DoD Information Technology Security Certification and Accreditation Process (DITSCAP)"	Information Assurance Strategy C4I Support Plan	
ii. Show how IA features are consistent with DoD policies, standards, and architectures. iii. Discuss provisions for restoration of information systems by incorporating protection, detection and recovery capabilities and how IA attributes were built into the program from the beginning.	40 USC 1425	C4ISR Architecture Framework V2.0		CIO

PRA: Paperwork Reduction Act of 1995, as amended (P.L. 104-13; May 22, 1995)
CFOA: Chief Financial Officers Act of 1990, as amended (P.L. 101-576, November 15, 1990)
GPRA: The Government Performance and Results Act of 1993 (P.L. 103-62, August 3, 1993)
FASA: Federal Acquisition Streamlining Act of 1994 (P.L. 103-555, October 13, 1994)

Information below is addressed in the write-up documentation:

Notification Requirements	Assessment Guidelines	Milestone Applicability	Office of Primary Responsibility
Funding Baseline and Milestone Schedule			C3I, PA&E, USD(C)
Show how funding baseline and Milestone schedules have been established and maintained since the inception of the program?	DoD 5000.2-R	Information Technology Capital Investment Justification Exhibit (IT 300b); Acquisition Program Baseline (APB); Economic Analysis.	

(SYSTEM NAME)

INFORMATION REQUIRED BY SECTION 8121(b) OF THE DEPARTMENT OF
DEFENSE APPROPRIATIONS ACT, 2000

INTRODUCTION - (Enter the legislative requirements for Section 8121(b) Certification.)

The following paragraphs are sample wording:

This report contains information required by section 8121 (b) of the DoD Appropriations Act for Fiscal Year 2000. That section required the Department of Defense (DoD) Chief Information Officer (CIO) to certify that each major automated information system is being developed in accordance with the Clinger-Cohen Act of 1996 (40 U.S.C. 1401 et seq.) prior to Milestone I, II or III approval. The statute also stipulates that the notification to the Congressional Defense Committees must include, at a minimum, the funding baseline and milestone schedule and specific confirmation that the following requirements have been satisfied with respect to the system:

      a. Business process reengineering (BPR)
      b. Analysis of alternatives (AoA)
      c. Economic analysis (EA) - Calculation of the return on investment.
      d. Performance measures
      e. Information assurance (IA)

(System Name) has been assessed for compliance with each of the lettered areas and the results of the certification review are reported in the following pages. The appendix to this report contains **(System Name)** funding baseline and milestone schedules.

The Component Head or designee has concurred that **(System Name)** is being developed in accordance with the provision of the Clinger-Cohen Act of 1996.

The DoD CIO will certify that **(System Name)** is being developed in accordance with the provisions of Clinger-Cohen Act of 1996.

OVERVIEW - (Enter a three or four paragraph description of the MAIS mission need; key requirements, objectives, goals and priorities; program governance; and other key elements.)

REQUIREMENTS - The Confirmation Matrix, Attachment 1, contains questions that, at a minimum, should be addressed in responding to each of the following requirements:

Attachment 2

a. Business Process Reengineering (BPR) - (In addition, provide an example of a BPR initiative that resulted in business process improvement(s) and/or influence change in policy/procedures affecting the process.)

b. Analysis of Alternatives (AoA) - (In addition, provide a detailed description on the alternatives reviewed using the format contained in Table 1 of this Attachment

c. Economic Analysis (EA) - (In addition, provide a detailed description on how the return on investment (ROI) was calculated and various incremental ROIs using the format contained in Table 2 of this Attachment.

d. Performance Measures

e. Information Assurance (IA)

Analysis of Alternatives (AoA)

Provide a detailed description of the programmatic alternatives reviewed. In addition, the information must be provided from Milestone 0 to the current Milestone. Back-up documentation must be available to support data entered in the Table. This table is a Mandatory requirement for Compliance and Certification Reporting.

Milestone	FY	Status Quo	Alternatives	Selection

Table 1: Analysis of Alternatives (AoA)
(SYSTEM NAME)

Economic Analysis (EA)

Present the results of (System Name) performed to date, as well as, the near-term schedule. Information must be provided from Milestone 0 to the current Milestone. Back-up documentation must be available to support data entered in the Table. This Table is a Mandatory requirement for Compliance and Certification Reporting.

EVENT	FY	SCOPE	INVESTMENT	BENEFITS	ROI

Table 2: (SYSTEM NAME) EA

APPENDIX A

(SYSTEM NAME)

Funding Baseline

Present **(System Name)** funding levels as they have existed at each Milestone (MS) Review. Refer to the Confirmation Matrix, Attachment 1 for information that must be addressed. **This Table is a Mandatory requirement for Compliance and Certification Reporting. Back-up documentation must be available to support the information provided in the Table.**

FUNDING BASELINE and MILESTONE SCHEDULE

Milestone	Actual Date		FY87	FY88	FY89	FY90	FY91	FY92	FY93	FY94	FY95	FY96	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	TOTAL
0		Req																				
		Funded																				
I		Req			1				1	1			1		1							
		Funded			1		1															
II		Req									1											
		Funded																				
		Funded									1	1										
IIIa		Req												1								
		Funded												1			1					
IIIb		Req																				
		Funded																1	1			
IIIc		Req												1								
		Funded												1	1							
Summary		Funded																				

FY__ (Indicate the System Name) Project Funding (Current Year $ in Millions)

Table A-1: Funding Baseline

Reconciliation of Program Management Plan (PMP), Acquisition Program Baseline (APB), IT- 43/300b Exhibits (as applicable), and Economic Analyses (EA)

Present the cost linkage (to include life cycle cost estimate (LCCE)) between **(SYSTEM NAME)** PMP/APB (as applicable), IT-43/300b Exhibits (as applicable), and EA. **Information must begin with Milestone 0. Back-up documentation must be available to support the data entered in the Table. This Table is a Mandatory requirement for Compliance and Certification Reporting.**

MS	FY	PMP/APB			IT-43/300b		EA
		Req'd	Funded	LCCE	Funded	LCCE	LCCE

PMP/APB, IT-43/300b, and EA Cost Linkage (Current Year $ in Millions)

Table A-2: Cost Linkage

Milestone Schedule

Present the **(SYSTEM NAME)** approved MS schedule. **Information must begin with Milestone 0 data. Back-up documentation must be available to support the data provided in the Table. This Table is a Mandatory requirement for Compliance and Certification Reporting.**

EVENT		MS 0	MS I	MS II	MS III		
Milestone	Actual Date						
BASELINE							
0							
I							
II							

EVENT	MS 0	MS I	MS II	MS III	MS IIIa	MS IIIb	MS IIIc	MS IIId	MS IIIe	MS IIIf	MS IIIg
IIIa											
IIIb											
IIIc											

Approved (indicate the System Name) MS Schedule

Table A-3: MS Schedule